

**T**he commodity markets are an essential part of not only the oils and fats industry, but also of most other processing and production industries. In fact, they are essential for the functioning of global trade as we understand it. Without commodity trading, the systems currently in place for controlling the values of currencies, supplying energy to the grid and ensuring that biofuel producers get the palm oil they need would simply not function.

Commodity trading is not a modern invention, either. There is some evidence, according to financial editor and writer Marvin Dumon on *Investopedia*, that rice futures could have been traded in China as long as 6,000 years ago. Many lucrative trade agreements have been signed around commodities, building international cooperation and benefiting people around the world.

At other times, commodity shortages have dragged nations into strife and warfare, such as when Japan invaded its neighbours before and during the Second World War to ensure a steady supply of rubber and iron, while commodity surpluses can devastate the economy of producing regions.

But what exactly are commodities if they are so important? CME Group, the operator of one of the world's largest options and futures exchanges, defines a commodity as "any product approved and designated for trading or clearing in accordance with the rules of an exchange", including physical commodities.

In slightly simpler terms, a commodity is a trade good that is interchangeable with other goods of the same type. This means that there is a

# Trading, futures and exchanges explained

**Commodity trading by buying and selling futures and options contracts at futures exchanges forms the lifeline of the oils and fats industry. But how exactly does it all work? Ile Kauppila explores the basics of commodity trading**

uniform quality standard in place across a certain commodity type, such as soyabean, and product from two producers will be similar.

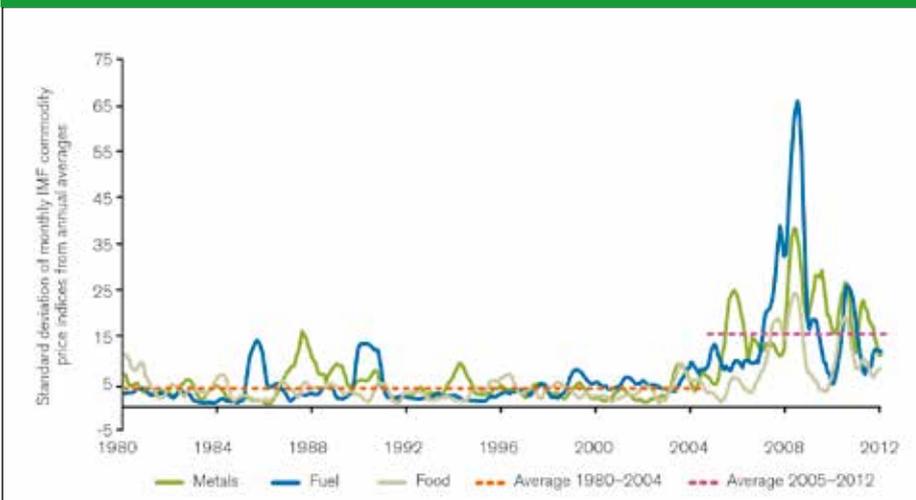
While no two batches of soyabeans are exactly identical, their quality will still be within agreed-upon limits. Thus, predetermined standards are essential for commodity trading. Without them, buyers could not be assured that they will receive a quality product with each purchase.

Commodities are generally traded in four categories, namely energy, metals, livestock and meat and – most importantly from the perspective of the oils and fats industry – agricultural products. Agri products, including oilseeds and grains, are the oldest form of commodity upon which the very first futures exchanges were established.

The primary purpose of commodity trading in the oilseed and grains markets, as with all commodities, is to provide certainty to both buyers and sellers and to reduce the risk their businesses face. These markets are much more volatile than, for example, stocks and bonds, as there are more variables affecting them (see *Figure 1, following page*).

Profits from an oilseed harvest, for instance, could be ruined by the weather (too much or too little rain), global economic development (dropping demand for sunflower oil can drag down seed prices) or technological advances (a new harvesting method could make oil produced in a certain manner less competitive). To protect their businesses from such volatility, farmers, processors ▶

FIGURE 1: VOLATILITY IN COMMODITY MARKETS (1980–2012)



SOURCE: CHATHAM HOUSE CALCULATIONS BASED ON IMF COMMODITY PRICE DATA

FIGURE 2: MALAYSIAN CRUDE PALM OIL FUTURES PRICES, APRIL 2016–MARCH 2017



SOURCE: OIL WORLD

▶ and traders often rely on futures and options on futures contracts to sell and buy commodities.

### Contracts and OTC trading

Futures and options contracts are a form of derivative, a financial instrument whose value is based on a physical commodity or other financial instruments. They are among, if not the, most common ways to engage in commodity trading.

In essence, a futures contract is a contractual agreement that obligates a party to buy or sell a determined amount of the described product at a fixed price at a certain future date. Futures contracts detail the quality and quantity of the underlying asset in a standardised manner to ensure that the contractual obligation is fulfilled.

“The futures contract has to be relevant to the underlying, real cash market,” Fleur Binyon, manager of corporate communications at the CME Group, tells *Oils & Fats International*. “In order for that to happen, you need to know the delivery details and the contract specifications making the sold product the right grade, and so forth.”

Options on futures, or simply options contracts, are in many senses similar to futures. However, the

primary difference between options and futures is that options give the holder the right to buy or sell the underlying asset at the time of the contract’s expiration, while the holder of a futures contract is obligated to fulfil the terms of the contract.

Should the option be exercised, the initial holder of the option then enters into a ‘long option’ of the contract and buys the product at the specified price. A ‘short option’ on a futures contract lets an investor enter into a futures contract as the ‘short’, who would be required to sell the underlying asset on the future date at the specified price. In a nutshell, the holder of an options contract has the *option* to buy or sell the product, but they do not *have* to, unlike with a futures contract.

This way, futures and options protect both the seller and the buyer. For example, let us think of a soyabean farmer who wants to sell his crop, but has heard that prices might fall before harvest time. By engaging in a futures contract with a buyer, he can lock onto a certain price for his beans and thus protect himself from the possible future profit loss.

Similarly, a soyabean producer can enter into a futures contract with a farmer to ensure steady supply of raw material at an affordable price, even when faced with rising costs due to, for instance,

generally poor harvests.

Should our farmer, however, also want to cover the possibility of rising prices, he could sign an options contract. Then, if the soyabean price indeed ends up rising, he can simply not exercise his right to sell at the predetermined price and thus increase his profits.

To trade these contracts, buyers and sellers again have a number of options. The oldest and most traditional way to trade futures and options is for them to agree on an over-the-counter (OTC) deal. OTC trade takes place between a buyer and a seller outside of a formal, regulated setting.

To make an OTC deal, our soyabean farmer could call the manager of a nearby processing plant over to his house for a cup of coffee, while they negotiate a deal right there in the farmer’s living room. However, usually traders work through a network of traders who negotiate the deals on a one-to-one basis.

OTC derivatives allow traders to go beyond standardised futures products and customise the terms of the contracts freely. However, while OTC deals can offer greater freedom and lower trading costs, they cannot protect either party in the case of counterparty default. In short, both the possible profits and risks are higher with OTC deals.

The popularity of OTC deals seems to be on the decline, according to March 2017 data from the Bank of International Settlements, which noted that the gross global market value of commodities other than precious metals had decreased from US\$277bn in the second half of 2014 to US\$157bn in the first half of 2016. In general, the total values of all commodity contracts in the same period fell from US\$318bn to US\$202bn.

### Futures exchanges

Should oilseed farmers and sellers want a more secure and controlled trading environment than what OTC deals can provide, they can list their contracts at a futures exchange. Futures exchanges are, as defined by the CME Group, central marketplaces where buyers and sellers of commodities come together to trade their futures and options contracts.

Futures exchanges make it easier for both buyers and sellers to manage risk by providing a regulated, stable and transparent marketplace with high liquidity. They are self-regulating organisations, meaning they have stringent internal safety standards. Additionally, they are closely monitored by both third party regulatory group functions and government agencies.

“It’s risk management, first and foremost,” says Binyon. “Exchanges are, by their very nature, standardised. This often makes them cheaper to trade on and more transparent than OTC trades.”

According to CME, a modern, trustworthy futures exchange is built on four key elements. These elements are:

- **The futures traders** – These include both hedgers, who are trying to decrease the risk they are assuming in trading, and speculators, who are willing to take on higher risks in hopes of potentially greater profits. These two types of traders go hand in hand, ensuring the flow of trades back and forth and thus contributing to a balanced marketplace.
- **Trading technology** – Most modern futures

exchanges use electronic trading platforms to enable them to operate on a truly global scale. Electronic trading provides 24/7 access to the market at a steady speed with increased transparency. They also decrease the possibility of human error, which could potentially cause buyers or sellers significant losses.

■ **Clearing** – Nearly every futures exchange operates its own internal clearing house. They operate as neutral parties, providing a seller for every buyer and vice versa. Clearing houses validate the credibility of the parties involved in each trade and ensure that both can make good on the terms of the trade. They assume responsibility for the buyers' and sellers' performance, thereby protecting the integrity of the marketplace.

■ **Liquidity** – Liquidity translates the ability of each buyer to find a seller and vice versa to keep trading activity consistent and reliable. Being able to find a counterparty quickly and efficiently prevents substantial waiting times from impacting market prices. The more liquid the futures exchange, the better.

There are dozens of futures exchanges around the world, each providing a variety of services and commodities for trading. Not every exchange will list every available commodity and some may be specialised in a very limited range of contracts.

The most important futures exchanges around the world for operators in the oils and fats industry are:

### CME Group



CME Group operates the world's largest futures and options exchange, handling three billion contracts worth approximately US\$1 quadrillion annually. Made up of several subsidiaries, it operates major exchanges in Chicago and New York City and exchange facilities in London. It offers a wide variety of contracts based on agricultural commodities, rare and precious metals, interest rates, foreign exchange and energy, among others.

CME Group was founded as the Chicago Board of Trade (CBOT) in 1848 to provide a centralised location for US merchants concerned about ensuring that there were buyers and sellers for their commodities. The Chicago Mercantile Exchange (CME) was founded 50 years later in 1898 as a non-profit spin-off of CBOT and was at the time called Chicago Butter and Egg Board.

CME went public in 2002, followed by CBOT in 2005, and the two companies merged into the

CME Group in 2007. The group acquired the New York Mercantile Exchange parent company NYMEX Holdings in 2008 and 90% of the Dow Jones Indexes in 2009. In 2012, finally, CME Group became what it is today with the acquisition of the Kansas City Board of Trade.

Through each of its exchanges, the CME Group covers a massive number of commodities and securities. Most of its agricultural contracts, including soybean and soybean oil, are listed on the CBOT, while its palm oil futures and options – in cooperation with Bursa Malaysia – are processed through the CME.

#### Contracts provided by CME Group:

- Soybean futures/options
- Soybean oil futures/options
- Soybean meal futures/options
- Mini soybean futures
- USD Malaysian crude palm oil calendar futures
- Malaysian palm oil calendar swaps

### Euronext



Operating from exchanges in Amsterdam, the Netherlands; Paris, France; Brussels, Belgium; and Lisbon, Portugal, Euronext describes itself as the "first Pan-European marketplace". In addition to its four main exchanges, Euronext also operates a regulated securities market in London, UK. It is the primary rapeseed futures exchange in the world.

Euronext traces its roots more than 400 years back to the first European stock exchanges. In 1607, traders in Amsterdam began trading the first corporate shares to fund the Dutch East India Company's travels to the Far East. In Belgium, the birthplace of the 'bourse', 13<sup>th</sup> century merchants gathered in the house of the van der Bürse family to do business, while the first purpose-built stock exchange was built in Antwerp in the 1500s. France and Portugal also have stock exchange traditions stretching back to the 16<sup>th</sup> and 18<sup>th</sup> centuries.

Based on these century-old practices, Euronext launched its rapeseed grain futures contract in 1994 in response to the 1992 European Common Agricultural Policy (CAP). Developed in close cooperation with the oilseeds industry and trade organisations, Euronext's contract volumes increased by 67% around the turn of the last decade to reach 93M tonnes in 2013.

In 2014, the group further expanded its portfolio with the launch of two separate contracts for rapeseed meal and oil. The new contracts, Euronext says, provide a clear response to the high volatility in the oilseeds sector and offer the industry a way

to hedge their entire purchase and output chain as well as its crushing margin.

#### Contracts provided by Euronext:

- Rapeseed futures/options
- Rapeseed oil futures/options
- Rapeseed meal futures/options

### Bursa Malaysia



Formerly known as Kuala Lumpur Stock Exchange (KLSE), Bursa Malaysia is one of the largest bourses in the Association of South East Asian Nations (ASEAN) region. It hosts more than 900 companies across 60 economic activities. Bursa Malaysia's comprehensive product range includes derivatives, futures and options, offshore and Islamic assets, as well as exchange-related services, such as listing, trading, clearing, settlement and depository.

Malaysia's first formal securities business organisation, the Singapore Stockbrokers' Association, was founded in 1930 and during the same year it set up the KLSE. In 1960, the Malayan Stock Exchange was established and the public trading of shares commenced. The Stock Exchange of Malaysia was founded in 1964, but nine years later this entity split into the Stock Exchange of Singapore and the KLSE Berhad with the cessation of currency interchangeability between Malaysia and Singapore.

In 1976, the KLSE was incorporated, and it is this event that Bursa Malaysia dates back to, gaining its current name in 2004. In May 2015, the company started promoting sustainable strategies amongst its issuers and the marketplace by joining the United Nations Sustainable Stock Exchanges (SSE) initiative

Within the oils and fats industry, Bursa Malaysia is particularly recognised for one of the world's most liquid and successful crude palm oil (CPO) contracts, the FCPO. The contract, available since 1980, is used as the global price benchmark in the edible oils and fats industry (see Figure 2).

On 17 September 2009, Bursa Malaysia entered into a strategic partnership with the CME Group to improve accessibility to its derivatives offerings globally. Together, the companies made the contract available on the CME Globex platform to bring it to a wider global marketplace.

#### Contracts provided by Bursa Malaysia:

- Crude palm oil futures/options
- USD RBD palm olein futures
- CPO kernel oil futures
- USD crude palm oil futures